

WHAT IS CLAIMED IS:

1. A virtual space rendering/display apparatus comprising:

first generation means for generating an image of
5 a virtual space on the basis of a first viewpoint
indicating a viewpoint of a user on the virtual space;

first display means for displaying the image of
the virtual space generated by said first generation
means;

10 second generation means for generating a map
image indicating a region around a position of the
first viewpoint on the virtual space;

second display means for displaying the map image
generated by said second generation means;

15 viewpoint position visual axis direction control
means, provided on a display screen of said second
display means, for controlling the position and a
visual axis direction of the first viewpoint; and

manipulation control means, provided on a display
20 screen of said second display means, for making
manipulation control of a virtual object set on the
virtual space.

2. The apparatus according to claim 1, wherein said
25 second generation means generates an image of a
plan-view map that looks down the region around the
first viewpoint from a position immediately above the

first viewpoint.

3. The apparatus according to claim 1, wherein said
second generation means generates the map image as a
5 bird's-eye view.

4. The apparatus according to claim 1, wherein said
viewpoint position-visual axis direction control means
comprises a trackball which is fixed in position on the
10 display screen of said second display means, and
said viewpoint position-visual axis direction
control means defines a position of the trackball on
the display screen as the position of the first
viewpoint on the map displayed on the display screen,
15 and controls the position and the visual axis direction
of the first viewpoint by scrolling the map image
displayed on said second display means in accordance
with a rolling direction of the trackball.

20 5. The apparatus according to claim 1, wherein said
viewpoint position-visual axis direction control means
comprises a receiver of a sensor which is movable on
the display screen of said second display means, and
can measure a self position and posture, and
25 said viewpoint position-visual axis direction
control means controls the position and posture of the
first viewpoint in accordance with the position and

posture of the sensor.

6. The apparatus according to claim 5, wherein the display screen of said second display means has a first region that displays the map image, and second regions each of which is used to scroll the map image displayed on the first region in a direction corresponding to region where said viewpoint position-visual axis direction control means is placed on.

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7. The apparatus according to claim 1, wherein said manipulation control means executes one of:

a first mode for selecting a virtual object to be manipulated from virtual objects set on the virtual

15 space; and

a second mode for controlling a position and posture of the virtual object to be manipulated selected in the first mode.

20 8. A virtual space rendering/display method comprising:

a first generation step of generating an image of a virtual space on the basis of a first viewpoint indicating a viewpoint of a user on the virtual space;

25 a second generation step of generating a map image indicating a region around a position of the first viewpoint on the virtual space;

a viewpoint position-visual axis direction
control step of controlling the position and a visual
axis direction of the first viewpoint using viewpoint
position-visual axis direction control means provided
5 on a display screen of a display unit that displays the
map image; and

a manipulation control step of making
manipulation control of a virtual object set on the
virtual space using manipulation control means provided
10 on the display screen of the display unit.

9. A program for making a computer function as a
virtual space rendering/display apparatus of claim 1.

15 10. A program for making a computer execute a virtual
space rendering/display method of claim 8.

11. A computer-readable storage medium storing a
program of claim 9.

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12. A computer-readable storage medium storing a
program of claim 10.